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DOMESTIC ARTS COURSES IN PUBLIC SCHOOLS

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For several years our school system at Berlin was manifestly lacking in balance, through failure to provide adequate training for girls who evidently intended to become first of all housekeepers and home-makers. We had provided three courses for boys, namely, a Latin course, a commercial course, and a mechanic arts course; but only two for girls, Latin and commercial. The chief reason why a course parallel to the mechanic arts course was omitted was the honest but mistaken notion that a domestic arts course was by nature expensive beyond our means.

In common with many others, we assumed that the high price of all food materials, when coupled with the pedagogical necessity of cooking on a large enough scale to approximate real home conditions, would make the cooking supplies bear too heavily upon our available general fund for supplies, and so, rather than resort to the all-too-common practice of making jelly by the thimbleful and "rounding out" the course by the making of the simple recipes over and over, we let this gap in our educational chain remain unlinked.

The necessity for the course, however, proved the mother of ways and means for overcoming the obstacle of expense.

Berlin has about 1,200 children in the public schools, and of these 350 are in the high school. We have seven grades in the elementary and four in the secondary course, or eleven years in all from entrance to graduation from the high school. Our plan

was to employ the art of cooking as a means of neuro-muscular readjustment during and after the period of upheaval which appears from the eleventh to the thirteenth year. This plan requires that cooking, as well as normal hand sewing, shall be taken in the seventh grade of the elementary school and in the first year of the high school. Moreover, other considerations point to these same activities as educative ends as well as means.

On an average, we have fifty to sixty girls from the seventh grades and fifteen to twenty-five from the high school, who are taking the cooking courses; that is, sixty-five to eighty-five in all.

Our equipment, capable of taking care of groups of sixteen to twenty for both sewing and cooking, cost $257.43. This low initial cost is in part accounted for by the fact that our mechanic arts boys have made all desks, counters, closets, cabinets, and such other pieces of equipment as fell within their capabilities, so that only the cost of the lumber used in these is charged up to equipment. We have added to the original equipment in 1910 to the extent of $21.81 and in 1911 to the extent of $15.95.

Our kitchen and laboratory equipment is ample and satisfactory and the dining-room service abundant for serving luncheons to a maximum of twelve persons.

From the outset the plan has been to commence with plain, wholesome cooking of such everyday substantials as the workingman on an income of $12 a week can afford, and to add to this such semi-luxuries as the modest salary of a dry-goods salesman, or a school superintendent, might permit. Good wheat bread and biscuits, nourishing soups, low-priced meats, well-cooked vegetables, fish, eggs, wholesome cakes and puddings, etc.: these we hope to have selected, prepared and cooked and served in an attractive, wholesome manner.

How to keep down the cost of this department was the one question above all others that had to be solved. Our solution was to "borrow the materials from the neighbors" to cook in such combinations as scientific investigation has shown to be well suited to man's needs, and then after cooking to return the finished product to those who furnished the "raw materials."

This plan has met every demand and no doubt is applicable

everywhere. Each pupil becomes an agent for propagating the plan and collecting food stuffs. Every home wanted bread, cake, cookies, and doughnuts, and gladly sent in flour, milk, eggs, butter, etc., from which to make these substantials. Very soon orders from others than those having pupils in the school came in by note or phone. "Will the domestic arts pupils make a fruit cake for me tomorrow?" "I want a jar of mince-meat. Will your domestic arts classes make it if I send the materials?" Sometimes a very special "hurry-up" call for cake indicates company at home. A roast of beef or pork, lamb or veal croquettes, a roast chicken; indeed, every conceivable dish from Boston baked beans to frozen pudding is on our list of orders cooked. In the canning season grapes, peaches, plums, pears, tomatoes, quinces, blackberries, etc., come by quarts, baskets, and bushels to be made into jelly, conserve, perserve, marmalade, pickles, etc.

In some cases nearly a whole dinner has been cooked for some family, and occasionally a citizen has brought visiting friends to the school dining-room for a luncheon. In all these ways the school has had free materials to work on, while the neighbors have been saved the labor of cooking and have experienced the pleasure of new dishes by new cooks. It may be that in time we shall help to solve the "servant-girl problem" by guaranteeing meals during culinary interregnums.

There are many pedagogical as well as pecuniary advantages in this plan. Pupils are not only interested, but deeply, vitally, and enthusiastically so. If a cake is going to Mrs. X. to be passed upon as the product of the seventh, eighth, or other class, then this cake must be satisfactory. If a group of citizens, the Board of Education, or perhaps the City Council, are to have a luncheon served, then not only must it be well planned and prepared, but the serving must be well done. Responsibility in school as elsewhere brings results.

Given $200 to $250 and a room the equivalent in size of an ordinary schoolroom, and given also an enthusiastic young teacher of sewing and cooking, and any school system where there are 500 pupils or more may easily provide for a domestic arts course which will incur an expense for materials and supplies of from twenty

cents to thirty cents per pupil in the cooking, or five cents per pupil in the sewing.

Our supply account for the three years is as follows: 1909, $15.23; 1910, $29.15; 1911 (to date), $10.81.

The following detailed statement shows the range of our activities:

KITCHEN WORK

First Term's Work

September 7	Canned 30 qts. string beans (picked from school garden)	School use
	Made 1½ pk. tomatoes from school garden into piccallili	School use and 2 orders
	Canned 1½ qts. spiced blackberries	School use and orders
	Canned 2½ qts. plain blackberries	School use and orders
	3¼ qts. tomato catsup	School use and orders
to		
	3½ qts. green tomato preserve	School use and orders
	3½ qts. canned tomatoes	1 order
	2 qts. spiced whole tomatoes	School use
	1½ qts. chopped pickles	School use
	4 doz. tumblers crab apple jelly	3 orders
	4¾ qts. grape catsup	4 orders
	1⅓ qt. grape marmalade	2 orders
	30 tumblers grape jelly	2 orders
October 25	Canned pumpkin	1 order
October 25	Boston favorite loaf cake	5 orders
	Park St. cup cakes	3 orders
	Hermits	5 orders
	Walnut cake	5 orders
	White Mt. cream	3 orders
	Ginger puffs	3 orders
to	Vanilla wafers	6 orders
	Molasses cookies	3 orders
	Salad dressing	2 orders
	Chocolate cake	4 orders
	Patty shells	5 orders
	Gingerbread	3 orders
December 22	Layer cake	1 order

October 25	Ginger snaps	6 orders
	One egg cake	3 orders
	Nut cake	2 orders
	Baking-powder biscuits	2 orders
	Pork croquettes	1 order
	Mince meat	3 orders
	Roast chicken and gravy	1 order
	Molasses doughnuts	2 orders
	Parker House rolls	2 orders
	Frosted birthday cake	2 orders
	Thanksgiving puddings	4 orders
to	Popovers	2 orders
	Raisin cake	1 order
	Twin Mt. muffins	2 orders
	Sponge cake	2 orders
	Bread and rolls	10 orders
	Shamrock rolls	2 orders
	Bow knots	3 orders
	Fruit cake	5 orders
	Christmas puddings	3 orders
	Candy	2 sales
	Fudges	1 order
	Maryland biscuits	1 order
December 22	Dark fruit cake	3 orders

REMARKS.—All material was supplied by people for whom we made orders. Each girl made bread once this first term. Freshman and Sophomore cooking alike. Five times this term we had a thorough house-cleaning lesson.

SECOND TERM'S WORK

January 10	Lemon jelly	1 order
	Snow pudding	
	Fudges	
	Brown bread	2 orders
	Sugar cookies	6 orders
	Molasses doughnuts	3 orders
to	Sponge cake	2 orders
	Nut bread	4 orders
	Entire wheat bread	3 orders
	Stuffed steak	1 order
	Cream soups	
	Stock soups	
	Clear soups	
March 23	Boston favorite cakes	4 orders

January 10	Sugar doughnuts	4 orders
	Cranberry jelly	2 orders
	Veal loaf	1 order
	Molasses tea cakes	2 orders
	Bean pot roast	1 order
	Plain omelet	1 order
	Cheese omelet	
	Foamy omelet	
	Popovers	
to	Molasses cookies	2 orders
	Coffee, tea, cocoa	
	Fish à la rarebit	1 order
	Washington pie	1 order
	Sour cream pie	2 orders
	Gingerbread	
	Patty shells	1 order
	Potato croquettes	1 order
	Scalloped oysters	1 order
	Timbales	
	Vol-au-vents	
	Punch	1 order
March 23	Sandwiches	1 order
	House-cleaning every other week.	

March 23

SEMI-BANQUET
TO
LEGISLATIVE COMMITTEE ON APPROPRIATION FOR NORMAL SCHOOLS

Vol-au-vents of Sweet Breads and Mushrooms
Lobster Timbales Bechamel Sauce
Chicken Salad Potato Balls Saratoga Chips
Shamrock Rolls Bow Knots
Olives Salted Almonds Celery
Cold Sliced Ham
Fruit Salad Wine Dressing
Flowering Ice Cream Lady Fingers
Coffee Punch
Cigars

THIRD TERM'S WORK

April 4	Bread	54 orders
	Walnut cake	2 orders
	Snow cake	2 orders
	Custards	3 orders
	Cottage cheese	3 orders

April 4

Sugared beets
Shortcake.....2 orders
Griddle cakes
Gems
Cup cakes.....2 orders
Tarts
Cinnamon rolls
Cream toast
Dropped egg on toast
Ginger puffs.....2 orders
Popovers
Potato croquettes.....1 order
Cereal
Turkish pilaff
Fried mush
Caramel sauce
Macaroni
Molasses doughnuts.....1 order
Cottage pudding.....1 order
Coffee gelatine
Hermits
Dandelions and potatoes.....1 order
Sugar cookies.....1 order
Potato salad.....1 order
Meats
Invalid cookery.....Hospital

May 19

Practical test every other week on baking-powder biscuits, cake, cookies, doughnuts, gems, bread, and coffee.
Review of foods, beef creature, vegetables, and household accounts.

LUNCHEONS

February 14 (*Red color scheme*)

ST. VALENTINE'S LUNCHEON

TO

BERLIN HIGH SCHOOL ORCHESTRA

Tomato Soup Crisp Crackers
Veal Loaf Mashed Potato String Beans
Bow Knots Nut Bread
Cranberry Jelly
Asparagus on Toast
Vanilla Ice Cream Maraschino Sauce Cake

March 3

LUNCHEON TO LEGISLATIVE COMMITTEE
ON
NORMAL SCHOOLS

Sago Soup — Crisp Crackers
Bean Pot Roast — Brown Gravy — Mashed Potato
Fish à la Rarebit — String Beans — Piccalilli

Shamrock Rolls — Entire Wheat Bread
Spiced Blackberries
Washington Pie — Sour Cream Pie
Coffee

March 16

LUNCHEON TO HIGH-SCHOOL FACULTY

Cream of Tomato Soup — Crisp Crackers
Stuffed Steak — Brown Gravy — Potato Croquettes
Chopped Pickles — Piccalilli
Baking-Powder Biscuits
Ginger Bread and Whipped Cream — Coffee

March 17 (*Green color scheme*)

LUNCHEON TO SOPHOMORE D.A. GIRLS AND TEACHER,
PLANNED WITHOUT ANY ASSISTANCE OR INSTRUCTIONS

Split Pea Soup — Croutons
Scalloped Oysters — Potato Croquettes
Chopped Pickles — Shamrock Rolls
Pistachio Ice Cream — Frosted Cake
Coffee

April 8

LUNCHEON TO BATES GLEE AND MANDOLIN CLUB

Soup — Croutons
Lamb Croquettes — Tomato Sauce — Piccalilli
Mashed Potato — Sugared Beets
Entire Wheat Bread
Pineapple Shortcake — Coffee

April 26

SPRING LUNCHEON TO FRESHMEN D.A. GIRLS AND TEACHER, PLANNED AND PREPARED WITHOUT ANY ASSISTANCE OR INSTRUCTIONS

Vegetable Soup Crisp Crackers
Veal Croquettes Mashed Potato Cucumbers
Nut Bread Shamrock Rolls
Strawberries and Cream Cake
Coffee

May 10

BOARD OF EDUCATION LUNCHEON

Tomato Bisque Crisp Crackers
Roast Beef Brown Gravy Cucumbers
Baking-Powder Biscuits Nut Bread
Cheese Macaroni Timbales
Green Tomato Preserve
Strawberry Short Cake Coffee

May 11

"WARMED OVER" LUNCHEON

Clear Tomato Soup Croutons
Beef and Rice Croquettes Brown Sauce
Baked Cheese Macaroni
Baking-Powder Biscuits
Nut Bread Piccalilli
Sour Cream Pie Coffee

STUDIES IN THE PRINCIPLES OF EDUCATION

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IV. EDUCATION ACCORDING TO NATURE

Various influences have operated to make very popular the doctrine that education should follow as closely as possible the dictates of nature. This doctrine is advocated first by those who would overcome formalism of all types. Thus, Rousseau advocated a return to nature as a solution of the difficulties which he found in the artificial, stilted schools of his time. Others adopt the formula, "education according to nature," because of their studies in science. Biology has made it clear that human beings, like animals, must progress by the natural processes of evolution. Psychology has made it clear that mental processes, like the processes in the physical world, proceed according to certain definite laws. The experiences of modern life in all directions have shown that conformity to natural law is the only possible basis for successful operation in any line. It would be impossible in this generation, when biology and psychology are accepted as the foundations of educational practice, to advance any such doctrine as that which the Puritans advanced, when they asserted that the child is naturally evil and in need of a change in his nature.

The validity of the general doctrine will hardly be called into question by anyone. Interpretation of the doctrine is, however, difficult. For the purpose of excluding one very common interpretation of the doctrine, let us point out that Rousseau, in many passages, meant by "nature" physical nature, or the objects of the external world. He wished to have the young child brought into contact with the experiences which he encounters in the open fields. Rousseau wished the boy to study astronomy and magnetism and other facts of the physical world. "Nature" as used in this connection, is not the nature of the child, but rather the physical materials for imagery and thought. It would be entirely legitimate to

discuss the importance of concrete experiences in education, and undoubtedly Rousseau's teachings have done much to promote the development of concrete education in the modern schools. But this interpretation of the word "nature" is narrow.

The most fundamental doctrine of Rousseau's book is in no wise connected with his frequent references to the physical world. And when the general statement is made that we should follow nature in our educational practices, the ordinary advocate of the doctrine does not mean to lay emphasis on the objects which can be used to promote concrete education, but rather he wishes to call attention to the necessity of conforming to the natural laws of the individual's development and mental activity. We shall discuss, therefore, this general principle, that education should follow the natural laws of individual development, if it is to be successful.

When stated in this form, the doctrine can be illustrated by a number of definite statements that are to be found in all of our modern educational treatises. Perhaps the best single illustration of the application of this principle is to be found in the statement that play is a suitable model upon which to pattern all educational activities.

In the minds of many who make this statement, play is conceived to be a definite form of behavior, which is natural and which gives the child pleasure. Freedom, activity, spontaneity, and concentration are attributes of play which are praised as worthy of emulation. Examples are cited of the natural development of animals, and the fact is brought out that the animals have no other type of education, and yet acquire the highest forms of skill in their activities.

Even a cursory examination of the facts of play makes it clear that the virtues of play cannot be cultivated in individual experience by regarding play as a single act, to be repeated again and again in the same form. Play is a progressive series of developments. Without attempting any exhaustive classsification, one can call attention to the fact that the earliest plays of children are purely individualistic forms of exercise of the organs of sense and of the muscles. Somewhat later there enters the enjoyment of social competitions and associations, when the child begins to feel

the pleasure of companionship. This develops in turn into definite forms of group activity, which are characteristic of the adolescent period. Still later these forms of social play evolve into elaborate games, in which conformity to a set of rules and to ideal requirements constitute the real source of enjoyment.

Such a catalogue of the different stages of play shows that the principle of evolution is here in operation, and that no play activity can be regarded as natural which does not change both its content and its purpose. The adult who enjoys a game of chess is certainly not carrying on the same natural activities as the child who enjoys looking at a bright object because of its color and form. The chess game has more intellectual content than any of the simpler activities of the child's life, and it is for this reason that it gives the kind of pleasure which is satisfactory to the adult. Play is therefore not a natural form of activity in any one of its single types. It is natural at different stages of individual development to play in different ways. There is no sense in which it can be said that the same type of play is natural at all stages of individual development.

The most significant fact, therefore, that can be brought out with regard to nature is that nature is always substituting a higher form of activity for a more primitive type of activity. The general principle that we should follow nature gives us no clue as to exactly what is natural at different stages.

The discovery of what is natural at a higher level of development always depends upon a careful scrutiny of that which is preparatory to the stage under discussion. For example, it has been pointed out in many educational discussions, that at a certain age children learn to read or learn to use numbers very rapidly, whereas at an earlier stage they learn with very great difficulty. It has been argued therefore that no effort should be made at the earlier stage to develop these activities, because it is assumed that these activities will come spontaneously at the later age. There is a fundamental fallacy involved in such an argument. The later stage in any such development comes because of a previous development which has been going on. This antecedent development has had some content and it has been brought about by the effort

which has been made to master this content. If we should assume that the same degree of maturity would be attained by the pupil without any systematic training, we should find ourselves relying upon nature to do a work which has in all of the observed cases been worked out by nature through the use of some preliminary activity of a lower type, applied to some kind of content. Thus when it is assumed that a child will become interested at a certain age in reading or in number work, we should not forget that this interest is due to his growing contact with people and materials in school. Perhaps the pupil has been getting some training in oral work; he has listened to the reading of stories, and has, through a mastery of these simpler forms of expression, reached a stage where his interest in expression is sufficiently mature so that he will devote himself with concentration to the task of reading. In such a case the ability to concentrate upon reading is the outgrowth of the earlier concentrations upon oral content. If the child had been allowed to dissipate his mental energy upon the indifferent experiences of ordinary life and had never been attracted to expression as a subject of concentrated attention, he might have progressed in a perfectly natural way to a wholly different type of interest. The street gamin and the savage boy are no less natural in their development away from books than is the boy of a civilized family who is interested in books. In the same way the use of numbers can be fostered in a variety of different ways. It is possible to induce a child to be interested in the use of numbers by giving him some occasion to use numbers in shopwork or in other concrete activities. It is possible to train a child to use numbers by giving him the more elementary stages of arithmetic. The question of which is more natural is a difficult if not an impossible question to answer. Certainly the general principle that we should follow nature does not help us in choosing between these two methods of procedure. Both methods have as a matter of fact carried pupils toward that intellectual maturity which makes possible the mastery of later phases of the subject. To assume that the pupil has simply grown up to the point where he can master arithmetic fails to recognize this past history through which he has been developing the maturity that he now employs.

Some educational writers have used the term "nascent period" and have pointed out that there is an analogy between intellectual development and the development of instincts. They have argued that there are certain instincts which mature without any effort on the part of the individual. These instincts begin to express themselves at a certain time in pleasureable forms of activity. In the same fashion they say it would be possible for us to take advantage of the critical periods in the intellectual development of children. Let us wait, they say, for the natural powers to mature; we shall find that through sheer maturity it will become possible for the child to master without any great effort on his own part the later problems in arithmetic or in any other line. Before one relies on this analogy, he should recognize that the nascent period of an instinct is not a period of spontaneous appearance of something for which there has been no preparation in the earlier stages. An instinct matures because specific physical developments have been going forward. The nervous tissues have been maturing and the muscular structures which are involved have reached the stage of growth and power where they can execute the movements that are needed for the life of the animal. There is no nascent period without an antecedent development on the part of the individual. In this same sense we may look for nascent periods in intellectual life. There must be a maturing of the nervous system, and this development of the nervous system undoubtedly involves structural growth. Furthermore, intellectual development also involves the maturing of certain simpler intellectual powers, exactly as the maturing of an instinct involves the development of the muscles which are to act in instinctive performance. These simpler intellectual powers will not appear if they are not cultivated any more than the muscular development essential to the maturing of an instinct would show itself if there had not been some simpler form of muscular behavior antecedent to the instinct under discussion. The nascent period in arithmetic will not appear if there has been no exercise of the simpler intellectual powers which enter into the number ideas. If the simpler intellectual powers are given, there will be a progressive evolution toward the higher form of activity. The mistake which has sometimes been made in the use of the term

"nascent period" is the mistake of assuming that this nascent period comes of itself, without definite antecedents and without any effort on the part of the individual or of society. Observation shows how futile is the hope that children will spontaneously grow up into good spellers or good mathematicians. These complex arts are mastered only when progressive development in conformity with psychological laws is provided. Nature does not solve the educational problem unaided by antecedent exercise.

There is another fundamental mistake which is sometimes made when we overlook the progressive character of natural processes. The teacher very frequently gives instruction at a late stage of development in a way which is exactly like that in which instruction is given at an earlier stage. Thus in arithmetic we very frequently call upon children to go through the whole elaborate process, even after they have mastered the process very fully and have repeated it on numerous occasions. When the process of addition is mastered, it tends to become shorter and simpler. Unnecessary steps of the process tend to disappear, and the whole mental activity, if it is properly maturing, reduces itself, as does any habitual performance, to the lowest possible terms. It is a mistake to require of the child who has reached this later stage of maturity the same degree of explicit attention to the operations as that through which he is passing when he first began to add. If we use the analogy of play we are fully aware that we do not require, in playing a game, that the simplest stages of the game be worked out with elaborate detail after one has become an expert. To follow nature in allowing processes to change is very wholesome advice. Nature is progressive to such an extent that the great difficulty in educational activities is to keep pace with nature and understand the stages through which nature carries the developing individual.

The major consideration which grows out of any analysis of play, as an example to be followed by the educator, is that in mature human life play becomes more and more intellectual in character. This fact is paralleled in the animal world by the fact that play disappears in later life, giving way for the most part to the serious engagements of adult activity. That play does not

disappear from human life, but develops into art and the other elaborate forms of intellectual enjoyment, ought to make it perfectly clear to the advocates of nature in education that they have no right to ignore the intellectual outgrowths of play in the study of the educational problem. Not only does adult human life exhibit the highest intellectualization of play, but it exhibits also the highest intellectualization of the other activities in which the adult must engage. His work, if he carries it on to the highest development, will be arranged and ordered in terms of motives that are clearly thought out and which represent his highest intellectual development. The preparation for this intellectualization of play and work is to be found in certain forms of training which are in no wise opposed to nature in the earliest stages, but which go beyond that which would be suggested to the individual if he were left to his own immediate devices. Thus there is a sense in which a child would not naturally turn to reading. This is what Rousseau pointed out when he held that reading was unnatural for the young child, that the child should get all of his experiences from direct contact with the physical world. Reading is not the spontaneous form of activity that the child ordinarily exhibits. Rousseau makes the assumption, however, that in later life reading will come naturally. He forgets the street gamin and the savage. He assumes the later development of an ordinary schoolboy without allowing his ideal boy the antecedent experiences which lead this schoolboy to reading.

From the point of view of nature as we have defined it in this paper, the demand that the child mature into a good reader throws an obligation upon the early years of the child's life, namely, the obligation that there be some kind of antecedent activity which will lead up to fluent reading. Education is therefore in such a case as this an anticipation of some of the activities which show themselves to be important at a later stage in the individual's life. Such preparation is in no sense of the word opposed to nature. It is the highest recognition of the possibilities of natural development, in such a case as this, to anticipate later demands by appropriate forms of training.

Indeed, any study of human civilization will show that man

has used nature most effectively by anticipating the demands of nature. Thus in order to make the fullest use of water power man has thrown a dam across the river. It is not unnatural to build a dam across a river, and yet it is wholly out of keeping with that which nature would present to an unintellectual individual. To build a house is not unnatural in any proper sense of the word, and yet to build a house is not in keeping with that which nature spontaneously presents. The building of a dam and the building of a house must both of them be carried on with due recognition of the natural laws of physics, and yet these laws have been utilized in both of these cases for a complete mastery of the environment and for the creation of an environment which is more advantageous to man than that which is presented at the beginning by nature herself. So it is in the development of the individual. We cannot train the child without due recognition of the laws of his own mental life, and yet it is possible so to surround the individual child with advantageous conditions and so to promote his intellectual activities that we shall have a suitable readjustment of his life and a higher advantage to him and to society from a development of nature along directed lines. To direct nature is not unnatural. Slavishly to follow nature from moment to moment is not in keeping with the lesson that one learns as he studies the whole process of evolution, because nature herself progressively modifies the character of every operation. The animal forms have gradually evolved into higher forms. There is no limit in nature upon the changes which may be brought about by evolution. The chief lesson of biology to education is that change should be made as rapidly as it can be made in the direction of more complete adaptation. The whole problem of human education is a problem of accelerated adaptation. To take a child away from his first impulses and give him those forms of reaction which will be advantageous to him in the complex environment of civilized life is natural in the highest degree. It is this direction of his impulses into new channels which constitutes the educational process whereby we supplement nature and bring nature to its highest realization.

When one has thus discussed the principle of education according to nature, he finds that the formula is not very helpful in detail

in organizing education, nor is it a suitable weapon with which to criticize any of our current practices. As one reads educational literature he finds that nature has been used as a justification for almost every conceivable practice. We have been told that nature dictates the relatively late teaching of reading. We have been told on the other hand that nature dictates the early training of the child in reading. We have been told that nature calls for a training, first of the large muscles, and we have been told on the other hand that nature calls for a recognition of the finer co-ordinations as necessary even in the early life of the child. The fact is that there is no form of training which is outside of the general domain of nature. Even error is in some sense natural. The problem of discovering what is advantageous is not solved by a superficial inspection of what seems to be natural. The one great lesson which comes to us from biology and psychology is the lesson that we shall make a mistake if we let a child continue for any length of time at the level at which we find him at this moment. What is natural today at the present level of development is utterly unnatural and abnormal tomorrow. Nature is first of all progressive and adaptive. Our problem is to find out the most economical method of promoting change in the direction of adaptation as rapidly as possible.

EXPERIMENTAL SCHOOLS IN GERMANY IN THE EIGHTEENTH CENTURY[1]

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Experimental schools have influenced educational opinion.—The influence of small schools which have been organized to determine experimentally or to demonstrate practically the best methods of teaching has been an important factor in the history of education. In recent years the most notable example of such a school in America was the small laboratory school conducted by Professor John Dewey in connection with the Department of Philosophy of the University of Chicago, beginning in 1896. The statement of the theory and work of this school in Dewey's *School and Society* has been one of the largest factors in recent years in stimulating a reconstruction of American thought about education. The model and experimental kindergartens conducted by Froebel after 1837 in Germany, and especially the schools of Pestalozzi at Burgdorf (1800–1804) and at Yverdon (1805–25) and of Fellenberg at Hofwyl (1806–1844) in Switzerland are other examples of the widespread influence which practical experimentation on a small scale may have. Before Pestalozzi organized his schools, there was a very important and influential movement organized in Germany to carry out some of the practical reforms in methods of teaching which had been suggested in Rousseau's *Emile*. These reforms were successfully realized in certain experimental schools, one of which (Salzman's) continued in operation for over a century. In this school, methods of instruction in connection with physical education, nature-study, school gardening, geographical and other

[1] In the last two volumes of the *Elementary School Teacher*, a number of articles appeared which were intended to illustrate a method of teaching the history of education by emphasizing school practice in its relation to social conditions. This is the eighth article in this series. A textbook entitled *A History of Modern Elementary Education*, constructed on these principles by the same author, will appear in the near future.

excursions, etc., were organized, probably more effectively than in any school since that time. The initial agitation for this movement, in connection with the work of Basedow, is ordinarily discussed in the histories of education, but its practical culmination in the work of German schools is generally neglected. In view of this fact, a brief description will be presented here, of the whole development which began primarily as a reaction against the narrow, sectarian, religious spirit which dominated the work of German elementary schools.

Agitation for non-sectarian, national education.—Johann Bernard Basedow (1723–90), the leading agitator in this movement, was a relatively mediocre thinker. But moved by fanatical opposition to the narrow-minded sectarianism which prevailed in German thought and education during the eighteenth century, he succeeded in uniting various secular interests by an appeal to public-spirited philanthropists to contribute funds which would furnish the means of opening and conducting schools on a reformed basis.

The same kind of attack as was made by Voltaire and Rousseau in France on the insincerity, the formalism, and other evils of the narrow, sectarian, religious spirit which prevailed, was carried on in Germany by a number of famous university professors. Basedow was one of the minor combatants in this clash of the orthodox and reform religious forces. As professor in a Danish academy he delivered lectures on theology. His lectures and certain publications in which he maintained a sort of natural religion and combated definitely many of the sectarian beliefs, got him into controversies with his colleagues and the public authorities. In the chief cities, Hamburg, Lübeck, and Altona, his writings were condemned in 1764 as containing religious beliefs contrary to the official catechism.

Appeal for subscriptions to provide secular education.—Tiring of religious controversy, and taking advantage of the interest in education which the appearance of Rousseau's *Emile* had created, Basedow issued in 1768 an *Address to Philanthropists and Men of Property on Schools and Studies and Their Influence on the Public Weal.* In this address he appealed for funds to enable him to prepare textbooks and to organize a school which would provide a

kind of education quite different from that given in the contemporary schools which were dominated by the orthodox clergy. There were two striking suggestions in this appeal; namely, (1) that the schools should be open to children of all religions, that it should be non-sectarian; (2) that a national council of education should be established which should have charge of all public instruction. In addition to these points, the appeal advocated a type of education including reform proposals taken from many sources; from Locke that education should be practical and playful, from Comenius that it should be based on a study of pictures, from Locke and Rousseau that it should include a large amount of physical exercise, etc.

Model books and an unsuccessful school.—The appeal met with unprecedented success and subscriptions flowed in from Protestants, Catholics, and Jews, from lodges of Free Masons, from the noble, the wealthy, and often the poor of all countries, who were interested primarily in the possibility of an education which would be free from the restrictions of sectarian narrowness. With the aid of these funds Basedow published a book on method, and a manual of information for use in the schools which was accompanied by a volume containing one hundred engraved pictures illustrative of the scientific and practical subjects discussed in the manual. These books enjoyed an astounding and flattering success, and were widely praised. In 1774 Basedow opened his model school, called the Philanthropinum, at Dessau. This was never very large or very successful, owing to Basedow's incompetence, his vicious habits, and his inability to get on with his assistants.

Philanthropinums became an educational fad.—The popularity of Basedow's publications resulted in a fad in Germany for the establishment of Philanthropinums. In the large cities, advertising signs stating "Here is a Philanthropinum" (Allhier ist ein Philanthropinum) were common. Many of these were ridiculous frauds, and were appropriately satirized by contemporary writers. On the other hand, some of these schools, in France and Switzerland as well as in Germany, were serious and successful attempts to carry out Basedow's plans, and they continued their intelligent experimentation down to the time of the influence of Pestalozzi.

A model secular school for children of means: Salzman.—The most successful of these schools conducted on Basedow's plans was that of Christian Salzman (1744–1811) who had been employed by Basedow for a short time. As he could not get along with Basedow, Salzman decided to establish a school of his own, and after careful investigation chose a site at Schnephenthal in Saxe-Gotha where he enjoyed the sympathetic assistance of the reigning family. He secured an ideal location for his school, on a farm near the Thuringian Forest, in a region with a great variety of physiographic features, including mountains, valleys and plains, lakes, and other possibilities for the study of nature and art.

The school was opened in 1784, and the first pupil was Karl Ritter, who later became the founder of modern geography. Salzman restricted the number of pupils, generally below sixty, in order to maintain the spirit of family life. The pupils arose with the sun, spent a few hours in agricultural work, gardening or tending domestic animals; had morning song in the chapel; breakfasted; spent about eight hours of the day in study, at least one in gymnastics, and several in recreation.

Principles of Rousseau successfully followed.—In addition to providing a certain amount of the traditional school work, many of the most important recommendations of Locke and Rousseau were carried out. Among these innovations were the following:

1. *Much physical training.*—A large amount of physical training, including swimming, skating, etc., was provided. Johann Christoph Friedrich Gutsmuths (1759–1839), "the grandfather of German gymnastics," was instructor at the school for many years.

2. *Nature-study and lessons on things.*—The younger children spent three hours a day in the study of natural history and "lessons on things." The instructor said, "Everyday I go with my children into my scientific laboratory and seek what is most worth studying. My laboratory is nature herself."

3. *School gardening and manual training.*—Each child had his own garden plot for which he was responsible, thus giving training in practical agriculture. In his plan for such a school, Salzman announced that he would have workshops for manual training, but

it is not clear from the accounts that I have consulted that these were provided in actual practice.

4. *Many organized excursions.*—Excursions through the surrounding country were very common. Sometimes these were several days in length. On such occasions the pupils were organized as militia into companies with officers. The cavalry went on ahead to prepare quarters, then followed the baggage wagons, and finally came the infantry. The objective point was always of special geographical, industrial, historical, or scenic interest. The children slept at night on straw. On their return each pupil had to give a description of the excursion in which he told about places passed, adventures, plants, animals and minerals, industries and persons that they had noted. Local history was also emphasized. These descriptions were reviewed and corrected by the teachers.

5. *Religion approached via moral stories and nature-study.*—In the religious instruction, theological aspects such as were included in the ordinary catechism for little children were not taught by Salzman until adolescence. Instead, moral tales which had been very carefully selected and prepared were first told the children and discussed with them as a means of developing ideals of worthy behavior. As the children grew older, these were followed by stories from the Bible, including the life of Christ, with emphasis on his character as an ideal man. Observations and discussions of nature supplemented this moral material, and not until the child was about twelve years of age was he introduced to the mysterious phases of religion. Even then such theological problems as are involved in the atonement, etc., were eliminated.

Prospered for over a century.—These phases of the work, namely, physical training, natural history, object teaching, school gardening, manual training, excursions, and non-theological religious training, show how thoroughly the idea of a secular education adapted to the understanding and needs of children had been carried out in practice by Salzman. The institution prospered under his management to his death in 1811, after which it was continued in successful operation by his descendants, and celebrated its one-hundredth anniversary in 1884; an unusual example of an experimental school of long and happy life, surviving the founder. It served as a model

of the possibilities of a better education, anticipating in successful practice most of the reforms of Pestalozzi.

Secular schools for peasant children: Rochow.—The secular schools of Basedow and Salzman were intended primarily as boarding-schools for children of means. But it was not long before the reforms which they embodied were attempted to some extent in the ordinary elementary schools or *Volkschulen*. The first experiment in this direction was tried by Baron von Rochow (1734–1805) in schools which he established for the children of the peasants living on his estates in Prussia.

Distress of peasants to be relieved by education.—He had been an officer in the royal Prussian guard, but had retired on account of injuries and devoted his time to the efficient management of his country estates. He pitied the unfortunate peasants who often suffered from failure of crops, from pestilence, disease, and starvation. This was due in a considerable degree to their own stupidity, ignorance, and improvidence, which rendered them incapable of profiting by the assistance which Rochow offered. During a particularly bad winter it suddenly occurred to Rochow that the only way to improve conditions was by a better and more practical elementary education which would be the basis of more intelligent methods of farming and living. He immediately determined to provide such an education and as a first step wrote (1772) a book intended to aid teachers in carrying out his ideas of reform. The title, *A School Book for Country Children, or for Use in Village School*, is misleading, as it was not a book for children but for teachers. Rochow had been captivated by the early publications of Basedow and reproduced many of the latter's ideas.

Famous model schools for peasant children.—The next step was to open a model school on his farm at Reckahn. As teacher he installed a young man who had lived with him as secretary and musician for six years. The school soon had over seventy pupils and the novelty and success of the instruction attracted visitors from Germany and other countries. The Prussian government sent official investigators to examine the work. All reported very favorably. They were particularly impressed with the ease and skill with which the teacher taught lessons on things to a school of seventy-three children. These lessons were conducted by means

of Socratic questions which kept up a continual conversation between teacher and class. In all the instruction, every point was made clear and significant to the children, not by wordy explanations, but by connecting it with their real experience and discussing its application in the practical affairs of their lives.

Changed social life resulted from the new education.—Similar schools were opened by Rochow on his other estates and the influence was soon evident in the changed social life of the region. This change is described by Rochow in these words: "Today at Reckahn, the parents have lost their bestial stupidity, thanks to the influence of the children; they believe in the physicians, rather than the sayings of old women. The mortality has diminished on all my estates. Attendance at school, in summer as well as in winter, is now one of the things that the parents most prize and often they thank me with tears in their eyes."

To assist similar schools in other parts of Germany, Rochow prepared two popular reading-books: *The Peasant's Friend* (1773) and *The Children's Friend* (1775). The latter was very successful and was widely used as a textbook even as late as 1850. It consisted mainly of short instructional stories or discussions relating to agriculture, domestic affairs, and good citizenship. It also contained two rhymed prayers for little children.

Christian morality and national regeneration emphasized, not theology.—Although the main emphasis was on training for practical affairs, Rochow's school was not irreligious. He provided training in Christian morality, however, instead of theology, and criticized severely the dull memorizing of the catechism, which constituted the work of the ordinary elementary school. Consequently he aroused the opposition of the ecclesiastics who tried in vain to discredit his work.

Rochow did not rest satisfied with the local results of his endeavors, but published in 1779 a work entitled *The Improvement of the National Character by Means of Popular Schools* (*Volkschulen*) in which he advocated universal education for national reasons instead of merely religious or utilitarian reasons. "Without a national education," he said, "it is impossible to have a national character, and that is precisely what is lacking in Germany."

One of the most famous of the visitors to Rochow's school, a

very influential German professor, wrote: "To admire and praise the worthy founder of this school is not enough either for me or him. His work should be imitated not only in the Mark of Brandenburg, but also in the whole kingdom." How the king and his minister attempted to establish such a system of national secular schools, with special reference to peasant needs, remains to be described.

Rochow's suggestions coincided with king's plans.—The reforms represented by the efforts of Basedow, Salzman, and Rochow coincided in point of time as well as in spirit with the reforms which the Prussian kings were endeavoring to carry into effect especially in the rural schools. The efforts of Frederick the Great in this direction were particularly significant, and from 1771 on were guided to a considerable extent by a special admirer of Basedow and Rochow, namely, the minister Zedlitz, head of the Department of Lutheran Church and School Affairs. In 1763 Frederick issued his General Code of Regulations for Rural Schools, which made attendance of children compulsory from five to thirteen years of age; provided for inspection of the schools; and set up very definite standards for their improvement.

Effective enforcement of law opposed by public opinion.—In many places, this law could not be effectively enforced, owing to the numerous difficulties. There was opposition from existing teachers who were too ignorant to be eligible under the new requirements. There was opposition from the farmers who wished to use their children for work at home. There was opposition from the nobility who viewed the law with alarm, maintaining that "like cattle, the more stupid the peasant, the better will he accept his fate." In spite of this strenuous opposition, the king was very active in his endeavors to enforce the law which he supplemented by additional orders intended to decrease "the great stupidity of the peasant children."

The control of schools transferred from church to national council of education.—Another step in the development of the Prussian system was the creation of the central administrative board or *Oberschulcollegium,* to have direction of all the school affairs of the kingdom. Although this occurred in 1787, after the death of

Frederick the Great, it represented the culmination of the tendencies of his reign as well as the influence of the Basedow tendencies described in the first part of this paper.

Minister Zedlitz reiterated suggestion of Basedow.—The creation of this board was suggested by the king's minister Zedlitz, who had been made head of the Department of Lutheran Church and School Affairs by Frederick the Great in 1717. A similar suggestion for the creation of such a "national council of education" was contained, as we noticed, in Basedow's *Address to Philanthropists* issued in 1768. Zedlitz was an enthusiastic champion of Basedow's ideas and was especially influenced by Rochow's experiments in applying these ideas to the improvement of rural education. Zedlitz kept up an active correspondence with Rochow and consulted with him concerning many of his own (Zedlitz's) plans for national educational reforms. In 1788, Zedlitz wrote:

> It is wrong to let the peasant grow up like an animal, having him memorize only a few things which are never explained to him. His instruction should include, besides religion, reading, writing, and arithmetic, also some experience with mechanics, the study of nature and dietetic rules, and some knowledge of government. Certain industrial activities like spinning and weaving should also be taught in the country schools.

In his suggestions to the king for the establishment of the *Oberschulcollegium*, Zedlitz said that such a board, with some degree of expert permanent membership, would be much more competent wisely to direct school affairs than were the consistories of the church under the direction of a king's minister as was the existing arrangement. Hence the establishment of the *Oberschulcollegium* represents the transition from church administration of the schools under state direction to expert state administration of the schools.

Zedlitz removed through conservative reaction of new king.—Zedlitz was made president of the new board, but he held his place under the new king for only two years. The latter was directly the opposite of Frederick the Great in his general attitudes. Instead of aiming to broaden and secularize the elementary schools, he maintained that their chief function should continue to be the teaching of religion, and that he would do his best to see that they were protected from the influence of rationalism, naturalism, and

deism. Owing to this reaction, no further progress was made in elementary education until the reforms at the beginning of the nineteenth century. But one other step in preparation for this latter development was to be taken.

Fundamental Prussian legal code (1794) defined schools as state institutions. Under Frederick the Great was begun the codification of the fundamental Prussian civil law, known as the *Allgemeine Landrecht.* The greatest scholars and jurists of Germany were engaged in this undertaking, the results of which were not published until 1794. Chapter twelve of the code was devoted to education. In it were formulated the culminating principles of the tendencies which had been developing during the century. Of the 129 sections in this chapter the following are especially significant.

1. Schools and universities are state institutions, charged with the instruction of youth in useful information and scientific knowledge.

2. Such institutions may be founded only with the knowledge and consent of the state.

9. All public schools and educational institutions are under the supervision of the state, and are at all times subject to its examination and inspection.

Basedow movement helped develop superior Prussian schools.— Thus a quarter of a century after Basedow issued his famous *Address to Philanthropists,* we find the Prussian schools established on the legal basis which made it possible for them to become the model schools of Europe during the first half of the nineteenth century; schools with which Horace Mann and all other American visitors compared American schools very unfavorably. The superiority of the Prussian schools is often attributed to their adoption of the Pestalozzian methods, and this was, indeed, an important factor. But it must be remembered that long before Pestalozzi's influence was felt, the Prussian kings were actively engaged in developing improved rural schools, and that the agitation conducted by Basedow, and the model schools of Salzman and Rochow, were important factors in showing the possibilities of improved methods, and in developing public sentiment in favor of a broader elementary education to remove the great stupidity and suffering of the peasants.

THE REORGANIZATION OF SCHOOL SYSTEMS

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The readjustment of school organization to the present social and economic conditions is worthy of consideration. On every hand additions to the curriculum mark the concessions which are being made to vocational interests. These additions, however, generally leave untouched the common divisions into elementary and secondary schools of eight and four years respectively, and the present practice of grading on averages, and of advancing the pupils by yearly or semiannual promotions based on such grading.

It is not to be doubted, however, that widespread dissatisfaction exists among educators with what are seen to be purely artificial distinctions and inconsequential practices. More clearly formulated *purposes* are determining the selection of subject-matter, the adoption of methods of instruction, and particularly the arrangement of plans of grading and promotion. In all parts of the country this dissatisfaction is to be noted by the thoughtful experiments which are being inaugurated in school management. In the following pages a few of these experiments are briefly described.

All efforts to reduce preventable retardation are worthy of careful study. Wherever "special classes," so called, classes for mental defectives or delinquents, or ungraded classes of any description are organized, this desirable end is brought nearer realization. These classes, however, are so commonly found in school systems today that no detailed mention of them need be made.

The grading system has been quite generally based on the supposition that a certain amount of school work should be accomplished in a definite period, and the *unit* of time has commonly been one year. Under this system, the pupil who is "retarded" usually, albeit with numerous individual exceptions, repeats the entire year's work.

While in many cities promotions are now made semiannually and elements of flexibility are being introduced into school grading

generally, it is probably within the facts to consider yearly promotions to be the plan which commonly obtains in the United States. In a few instances only have efforts been made to modify this practice radically. One of these examples is cited herewith.

PORTLAND, OREGON

The systems of promotion which have been in operation in Cambridge, Massachusetts, and St. Louis, Missouri, for so many years are too well known to require more than a passing mention. Less widely known is the plan which is followed in Portland, Oregon. Regarding grading and promotions in the schools in that city, Mr. Frank Rigler, city superintendent of schools, says:

The course of study is divided into fifty-four parts, numbered continuously from one to fifty-four. The time is divided into terms of five months each, promotions taking place regularly at the end of each term. Three terms, or one and one-half years, constitute what we for convenience call a cycle. Classes are permitted to progress at whatever rate is found suitable to their powers. But the two standard rates are three parts per term for second divisions and four parts per term for first divisions.

The normal class interval at the beginning of a cycle is three parts of the course of study, measured not in time but in work. In large schools the class interval is often only two parts of the course. Sometimes in the lower classes only one part of the course.

At the beginning of each cycle, any group of pupils who have reached the same point in the course of study is separated into a first and second division. By the end of the first term, the first divisions will have passed over four parts of the course of study, and the second divisions over only three. By the end of the second term, the first divisions will have passed over eight parts of the course of study and the second divisions over only six. At the end of the third term the first divisions will have advanced twelve parts and the second divisions only nine. It will be seen now that each first division has overtaken the second division next above it. In the new cycle these two divisions are united and again divided. In this redivision, some of the pupils that did first-division work during the preceding cycle are put into a second division, and some who did second-division work are put into a first division.

In every school-room there are two divisions progressing at different rates. Where the more advanced is a first division, the classes are said to be "diverging," i.e., the interval between them is increasing. Early in the cycle this is the condition in most school-rooms, but in the third term of the cycle, we try as far as possible to have first divisions roomed with second divisions which are in advance of them. Such classes are said to be "converging," i.e., the interval between them is diminishing.

In the exigencies of rooming it is sometimes necessary to make up a "division" by taking the stronger members of a first division and classing them with the weaker ones of a second division who are one or one and one-half parts in advance of them. In such cases the division commences its work at the point already reached by its stronger members. The interval of one or one and one-half parts can thus be passed over very rapidly, being review for the weak ones and new work for very strong pupils.

Such emergency divisions, however, do not usually continue more than a term. By that time the strong pupils have outstripped the weak and they are then classed with the strongest members of the same second divisions whose weaker members they have just passed, their place being taken by the middle section of the same division.

An important feature of our system of classification is promotion by subjects instead of by "averages." A pupil may do "first" division work in one subject and "second" division work in another. Sometimes he will have to recite part of his work in one room and part in another, but no inconvenience need result from this. In fact, it is an advantage in rooming, as we can make his headquarters in the less crowded of the two rooms.

Under the Portland plan, a pupil who does first division work during his entire life in the elementary school will be prepared for high-school work in seven years. A pupil who does second division work all the time will require nine years to complete the elementary course. We find that perhaps a third of the pupils require this time and they get it with us, not by failing once or twice and repeating some particular part of the course, but by doing somewhat less work each term for the entire nine years. Our first division proceeds one and one-third times as rapidly as our second division, or one and one-eighth times as rapidly as the normal class in the orthodox eight-grades system.

Fully half of our pupils are able to maintain this rate throughout the course, without detriment to their health and without much home study. A considerable number do part first and second division work, and thus complete the elementary course in seven and one-half, eight, or eight and one-half years.

CHICAGO, ILLINOIS

The vacation period is coming to be regarded as an opportunity for giving such additional attention to retarded children as will permit them to regain their grade and thus to avoid the discouragement of repeating the work of a semester or a year.

Experiments intended to reduce the amount of retardation in both the elementary and the high school were inaugurated in the Chicago public schools in the summer of 1911.

There were administered in connection with three of the vacation schools, although in a measure independently of them, what

were styled "Review Schools." Classes were formed for grades five, six, seven, and eight, and were open to children recommended by principals of the elementary schools as being able to profit by such work.

To be eligible for membership in these classes a child must have failed of promotion the preceding year, but at the same time must have shown some ability to recover his grade by the extra work of the summer session. The measure of success was to be determined by an examination given by the principal of the elementary school on the return of the children in September.

Three such review schools were in session for six weeks of the summer vacation on four mornings a week from nine till twelve o'clock.

Summer high-school classes, for pupils who had failed during the preceding year in one or more studies, were organized in the Wendell Phillips High School.

The classes received two lessons a day in each subject, with a study hour between, and were thus enabled, with ten recitations a week, to cover in five weeks the work of a quarter, or what amounted to a complete review of a semester's work.

No pupil was permitted to enter the school for the purpose of doing advanced work.

Partly as an experiment and partly because of financial conditions, a tuition fee of $10 was charged each pupil. This fact is thought to have some bearing on the measure of success attending the venture. Two hundred and ten pupils were registered in these classes and 89 per cent passed in one or more subjects.

The tuition fees practically covered all expenses.

It is expected that the review schools will become an integral part of the Chicago school system.

CLEVELAND, OHIO

Beginning with the summer of 1911, the entire school system of Cleveland was reorganized on a quarterly plan of four terms of approximately three months each, there being only a brief vacation between the quarters.

While this reorganization involves many educational questions,

it is of interest in this connection because the schools were open during the first summer quarter only to pupils who were below grade. There were about 10,000 such pupils in the city, about 5,000 of whom enrolled for the summer quarter. This, therefore, may properly be considered another plan for reducing retardation.

BERKELEY, CALIFORNIA

Examples of a more fundamental reorganization of school systems are to be found in the plans of Berkeley, Cal., and Concord, N.H.

The plan of organization described below has been in operation in the Berkeley schools for two years with marked and salutary effect on the retention of pupils.

The units of the school system are three in number instead of the conventional two. The first, the Elementary School, comprises the first six years; the second, the Lower High School, the seventh, eighth, and ninth years; and the third, the Upper High School, the tenth, eleventh, and twelfth years.

While satisfactory completion of the work of the first or second unit confers eligibility for the next higher grade, the main emphasis is not placed on *preparation*, with the higher school as a goal. Instead, the work of each unit is based on the assumption that *all* the children *might* leave school at the end of that particular cycle of work. Mr. Frank F. Bunker, superintendent of city schools, says that he is willing to contend that such a plan results, "not only in the best possible preparation for those who drop out, but likewise the best possible preparation for those who go on from grade to grade, finally entering the university." In a report to the Board of Education recommending the adoption of the plan, Mr. Bunker said:

> An examination of this plan will convince one, I think, that the division of the grades into three groups is a much more natural one than the arrangement under which we are now working with a division of the grades into two groups only.
>
> Statistics show that the masses are held in school no longer than through the fifth grade, and that at the close of the fifth grade they drop out in very large numbers, which means, educationally, that whatever is to be taught to the masses must be given in the first five or six years.

In the schools comprising this group of the first six years, I would have the course of study uniform for all children and somewhat narrow in its scope. I would see to it that emphasis is placed on those things which the masses must have if they get on at all. I would see to it that, whether or not anything else were gotten, at least the children learn how to read, how to write, how to use their own language, both orally and in written form, how to perform with facility and accuracy the simple operations of arithmetic and of accounting, and I would also see to it that in these first six years they get somewhat of a sympathetic knowledge of their city, state, and national government, and that they also learn the elementary things about sanitation and health conditions which everybody needs to know, not only to protect themselves as individuals, but to protect society as well. I would select from the corps for work in these first six years teachers who are particularly adapted to handling children of this early age and to inculcating the content which I have just outlined.

In the "Introductory High Schools" there would be congregated the seventh, eighth, and ninth years. These years comprise another natural group, inasmuch as children would enter it at the beginning of the period of adolescence, when by nature they naturally crave an opportunity to dip into a wide range of subjects and activities, which is Nature's way of insuring a freedom of choice in determining occupation and somewhat of intelligence in the same. I would have certain prescribed subjects for this group, but in addition thereto would permit as many electives as possible, thus making it unnecessary, as at present, for every child in the seventh and eighth grades to take exactly the same work as every other child. In contrast to the work of the first six years, I should wish to see the work of this group made exceedingly rich in content and variety, and particularly in human interest. I should hope to see the work of this group relate very closely to life and be as far away as possible from that which is purely academic in education. I should wish much emphasis placed on learning how to study, how to use the library, how to get material from the same with expedition and with judgment. If a child foresees that he wants to take German or Latin in the high school proper, I would wish him to begin these languages when he enters this group and thus have six years of work in the same before he enters college instead of four as according to our present arrangement. I should wish to see the work of this group shaped up to make a more easy transition from the work of the elementary grades to the departmental work of the high school. In line with this I should wish teachers assigned to work in these grades who have a broad culture and wide experience in teaching in the grades.

By an arrangement of this kind it would seem that the work of the high school proper could be made more intensive than it is at the present time with higher standards of scholarship and more rigid requirements than at present obtain, and without working any hardship upon the young people who enter the same, for it would seem that if this work which I have outlined be carefully

and efficiently done, that the incoming student will have developed a much more serious attitude toward his work than obtains at the present time; will have oriented himself better, so far as his subjects are concerned, and that the break will not be so great or so discouraging as with the plan under which we are now working.

It is evident that the crucial point of this unique organization is to be found in the Lower High School, and the plan commends itself for the reason that this period of school life coincides very closely with that period of youth which is, perhaps, the most difficult for the teacher to understand and, therefore, the one where the pupils suffer most from misdirected effort on their own part and also on the part of their teachers. In this system of schools the major purpose of the intermediate unit is one of adjustment.

Among other opportunities offered in this "trying out" period is the possibility of selecting studies which appeal to the awakening vocational interests of some of the pupils. Thus far the vocational subjects offered have been commercial rather than industrial, but, in such a community as Berkeley, this is perhaps all that could reasonably be expected in the second year of such an important transition.

CONCORD, NEW HAMPSHIRE

The reorganized school system of Concord consists of three units or groups, which are numbered in the reverse order of the grades or years in school.

Group 3, the elementary group, comprises the first six grades; Group 2, the lower of the secondary groups, comprises the seventh and eighth years, and Group 1, the ninth, tenth, and eleventh years, or the high school proper.

The plan is thus similar to that of Berkeley, with the important difference that, by the Concord plan, an attempt is made to save a year's time. It is believed that this is made possible by eliminating reduplication which so frequently obtains in the last elementary and the first high-school year of the traditional school system.

As carried out, the plan actually provides greater opportunity for differentiation than is found in Berkeley, as will be seen by referring to the following course of study for 1911–12.

ELEMENTARY SCHOOLS—GROUP 3

		Reading	Spelling	Arithmetic	Language	History	Geography	Hygiene	Penmanship
6th Yr.	L	"	"	"	"	"	"	"	"
6	K	"	"	"	"	"	"	"	"
5th Yr.	J	"	"	"	"	"	"	"	"
5	I	"	"	"	"	"	"	"	"
4th Yr.	H	"	"	"	"	"	"	"	"
4	G	"	"	"	"	"	"	"	"
3d Yr.	F	"	"	"	"	"	"	"	"
3	E	"	"	"	"	"	"	"	"
2d Yr.	D	"	"	"	*	"	*	"	"
2	C	"	"	"	*	"	*	"	"
1st Yr.	B	"	*	"	*	"	*	"	"
1	A	"	*	"	*	"	*	"	"

* Shows that the subject is not taken in this group.

KINDERGARTEN—ELECTIVE

Manual training—Woodwork, classes K and L—for boys.
Sewing, classes, I, J, K, L—for girls.

Music and drawing—All classes throughout the entire elementary course.

Ethics and nature-study—One period a week for fifteen minutes in *all* classes to K.

Physical exercises—Throughout the entire course.

No pupil below the age of five years can enter class A.

The age of pupils for kindergartens is from four to six years.

Parents are urged to continue children in the Kindergarten until the age of six years, because those pupils entering *class A* at five years of age are usually retarded a year on account of immaturity.

Parents are also urged to continue their children in school through class L, rather than send them to work before completing the elementary-school course.

Promotions—The class letters of each group represent nineteen weeks of school work. At the end of this time promotion to the succeeding class occurs. The figures indicate the years of school work. The years written at the left of each group indicate the number of the year in that group. It is often desirable for pupils to repeat class work of nineteen weeks, and parents are urged to co-operate with the teachers whenever this repetition seems necessary.

HIGH SCHOOL—GROUP 2

			Course I	Course II	Course III
Second Year	8	P	English 5 Algebra 5 Ancient History 5 *Choose One* Latin 5 French 5	English 5 Algebra 5 Commercial History 5 Commercial Geography 4 Penmanship (2) 1	English 5 Algebra 5 Ancient History 5 Mechanical Drawing, boys (4) 2 Free-hand Drawing, girls Advanced Woodworking, Cabinet Making, Turning, boys (8) 4 Domestic Science, Sewing, girls
		O	"	"	"
First Year	7	N	English Literature 5 Algebra 5 Latin 5 U.S. History 5 Manual Training 3	English Literature 5 Algebra 5 English Grammar and Composition 5 U.S. History 5 Penmanship (2) 1 Manual Training —Cooking— Sewing 3	English Literature 5 Algebra 5 English Grammar U.S. History 5 Penmanship 2 Elementary Cabinet Work, boys 3 Sewing, Cooking, girls
		M	English Literature 5 Arithmetic 5 English Grammar and Composition 5 U.S. History 5 Manual Training, Cooking and Sewing (4) 2	English Literature 5 Arithmetic 5 English Grammar and Composition 5 U.S. History 5 Penmanship (2) 1 Manual Training —Cooking— Sewing (4) 2	English Literature 5 Arithmetic 5 English Grammar 5 U.S. History 5 Penmanship (2) 1 Manual Training, boys (4) 2 Sewing, Cooking, girls

Military drill is required twice a week of all the boys in group 1.
Music may be elected one period a week in any course in group 1. Required in all other groups.
Drawing may be elected two periods a week in courses I and II.
Manual training and domestic science may be elected two periods a week in addition to work in courses I and II.
All electives are subject to arrangement of program.
The arrangement of studies in courses is designed to assist students in choosing their subjects so that each may follow out some definite line of work.
Students who intend to enter college should decide before entering class N.

Students are expected to take the full work of one course beginning with class N and thus secure a diploma.

To secure promotion to class N, 10 points are required; to class O, 20 points; to class P, 30; to class Q, 40; to class R, 50; to class S, 60; to class T, 70; to class U, 80; to class V, 90; to graduate, 100 points.

The numerals following subjects in the courses show the number of weekly recitations and the value in points of each study.

HIGH SCHOOL GROUP 1

			Course I. Classical and English	Course II. Commercial	Course III. Mechanic Arts
Third Year	11	V	English 4 U.S. History and Civics 4 *Choose Three* Latin 5 Greek 5 French 5 German 5 Review Mathematics 4 Advance Mathematics 4 Chemistry 5	English 4 U.S. History and Civics 4 Bookkeeping ½ yr. 4 Banking ½ yr. Economics ½ yr. 4 Commercial Law ½ yr. *Choose One* French 5 Chemistry 5 Stenography 4 Typewriting (4) 2	English 4 U.S. History and Civics 4 Chemistry 5 Mechanical Drawing, boys (4) 2 Free-Hand Drawing, girls Machine Shop Practice, Advance Mechanics, boys (8) 4 Household Economy, Sewing, girls *Choose One* French 5 Review Mathematics 4
		U	"	"	"
Second Year	10	T	English 5 *Choose Three* Latin 5 Greek 5 French 5 German 5 Physics 5 English History 5	English 5 Bookkeeping 5 *Choose Two* French 5 Physics 5 Stenography 4 Typewriting (4) 2	English 5 Physics 5 Mechanical Drawing, boys (4) 2 Free-hand Drawing, girls Machine Shop Practice, Elementary Mechanics, boys (8) 4 Household Economy, Sewing, girls French 5 English History 5
		S	"	"	"

HIGH SCHOOL GROUP 1—*Continued*

			Course I. Classical and English	Course II. Commercial	Course III. Mechanic Arts
First Year	9	R	English 5 Geometry 5 *Choose Two* Latin 5 Greek 5 French 5 Mediaeval and Modern History 5 Biology 5	English 5 Geometry 5 Commercial Arithmetic ½ yr. 5 Bookkeeping ½ yr. *Choose One* French 5 Mediaeval and Modern History 5	English 5 Geometry 5 Mechanical Drawing, boys (4) 2 Free-hand Drawing, girls Pattern-Making, Forging, F'dry Practice, boys (8) 4 Domestic Science, Sewing, girls *Choose One* French 5 Mediaeval and Modern History 5 Biology 5
		Q	"	"	"

In commenting on the plan Mr. Rundlett, superintendent of schools, says:

Through the first six years of this course the studies remain practically uniform for all pupils, the main idea being to teach them how to read, to write, to use the mother-tongue properly, the essentials of history and geography, how to take care of their bodies and to live in cleanliness and purity—in short, those things which all people should know to make the best use of their lives. Upon completing the work of group 3, the student may take up the work outlined for group 2, making his choice of approved high-school courses or pursuing still farther what are commonly called the three R's.

This change comes at a time in the pupil's life when he seeks variety. If he forecasts a college course he may have five years of study instead of four. If he wishes a more practical course he may choose a commercial or a mechanic-arts course. In these grades emphasis will be placed upon teaching the pupil to become self-reliant, how to study as well as how to recite, and to get material for his work with dispatch and with good judgment. He will be introduced to departmental teaching, handled by teachers who make a study of individual natures, and have the approval of the state department as being qualified for the work, thus securing the benefit of teaching backed by broad culture and by individual grade experience.

In the high school proper, group 1, advantage will be manifest in a decreased

enrolment so that the general atmosphere will be relieved of the confusion of numbers.

Eventually, more rigid requirements and better standards of scholarship should result, because entering pupils will have had two years of serious preparation along lines of high-school work.

This scheme is combined with semiannual promotion throughout the entire course.

EDITORIAL NOTES

Eleventh Yearbook of the National Society for the Study of Education

One of the meetings which is held in conjunction with the Department of Superintendence should have the support of all who are interested in the promotion of scientific studies of education. This is the meeting of the National Society for the Study of Education. This society has for a number of years prepared an elaborate yearbook which is made the basis of the discussions at the meeting. The *Eleventh Yearbook*, which will be issued shortly and put into the hands of members of this organization, deals with typical experiments in industrial education, and with agricultural education in secondary schools. It is not the function of this Journal to discuss the second half of this program, although attention may be called in passing to the fact that a number of able contributors have been secured to write on agricultural education in secondary schools. The first half of the *Yearbook*, which deals with industrial education, will describe in detail certain of the current practices in elementary schools which have attempted to solve the problem of industrial education. A section will be devoted to pre-vocational industrial training in the seventh and eighth grades. Superintendent Mirick of Indianapolis will give an account of his observations in this field. Mr. M. W. Murray, director of the Independent Industrial School at Newton, Mass., will give in another section a report on intermediate, independent, or separate industrial schools. Charles F. Perry, superintendent of industrial education at Milwaukee, Wis., will give an account of the trade schools. Meyer Bloomfield, director of the Vocational Bureau of Boston, Mass., will discuss vocational guidance. Other contributors will discuss vocational high schools, the part-time co-operative plan, and continuation schools. The volume promises to give in a definite, concrete way an account of what is going on in different parts of the country, that will supplement the literature already prepared on this general topic in a very important sense. As the secretary of the association points out in his preface, educators in different parts of the country may be acquainted with what is going on in their own immediate surroundings, but they are

likely to be ignorant of the experiments that are being tried at remote points. A limitation of the same general type applies to most of the commission reports. A report prepared in the eastern part of the United States is likely to omit consideration of much that is being done in the central part of the country and in the West. The *Yearbook of the National Society* promises to bring together a much wider range of information than is collected in most of the reports on this subject.

The Function and Membership of the Society

The collection of material of this sort is distinctly the business of some society. It is quite impossible for any individual to secure the co-operation of the kind of writers who are willing to contribute to a general report which is to be issued through a society. This *Yearbook* should have a very wide currency, and the meeting itself should attract the interest and attention of all who are seriously engaged in solving this problem. The National Society has had a long and influential history. Its future depends upon the support which can be brought to it by those who are interested in making investigations of the type represented in this *Yearbook*. It is the one organization that has devoted itself regularly to the serious study of a single problem each year. It is made up of practical school people and students of education in college departments and in normal schools, and is therefore one of the most democratic organizations dealing with education. It is smaller than the general Department of Superintendence or the general National Education Association, and consequently can do a type of work which these larger organizations must delegate to sections or even omit entirely because of lack of funds. The National Society has a series of publications which produce enough income to warrant the preparation each year of an elaborate handbook.

Northern Illinois Superintendents' and Principals' Association

The annual meeting of the Northern Illinois Superintendents' and Principals' Association will this year take up for its discussion a report prepared by the Committee of Seven. This organization had as its special subject of discussion last year a program of nature-study courses which had been prepared during the preceding twelve months by the standing Committee of Seven. The committee consists this year of the following members: Chairman,

I. B. Meyers, Francis W. Parker School; Secretary, H. A. Bone, superintendent, Batavia, Illinois; Dr. Charles A. McMurry, DeKalb Normal School; Superintendent C. M. Bardwell, Aurora, Illinois; Dr. O. T. Caldwell, University of Chicago; Dr. D. A. Tear, principal, Gladstone School, Chicago; Superintendent Edward F. Worst, Joliet, Illinois. The Executive Committee has directed the committee for this year to make a study of educational practices in various schools, and to embody their observations in a complete report. The reports will be on history, geography, and science. Each member of the committee is to study at least three schools, and the report will contain the accounts of the practices of the different schools observed. Many of the earlier reports of this organization have been somewhat theoretical in character. This statement may very properly be made with regard to the nature-study course which was proposed last year. The present effort of the committee is to get as much definite information from school experience as can be obtained and to make this the basis for a pointed discussion of the methods and content of instruction in the elementary schools. It is expected that reports of the work of this committee will be printed in the *Elementary School Teacher*.

Chicago Dinner at St. Louis in February

The editors of this journal wish to call the attention of all former students and instructors of the University of Chicago to the dinner which will be held in conjunction with the Department of Superintendence at St. Louis, on the evening of Wednesday, February 28, at the Mercantile Club, corner of Seventh and Locust streets, at 6:30. All who have ever been connected with the University are invited to attend this dinner. Reports will be made by members of the faculty of the work of the year, and it is hoped that the occasion will bring together former members of the institution from all parts of the country. At the Mobile meeting a similar dinner brought together forty former members of University classes.

BOOK REVIEWS

A Cyclopedia of Education. Edited by PAUL MONROE. Volume II. New York: Macmillan, 1911.

The second volume of this important educational work has appeared within nine months after the publication of the first volume. If this rate of production is maintained, the remaining three volumes will appear in a little over two years. This is a creditable degree of promptness in the production of a work of such magnitude.

The second volume has maintained the high standard of excellence which was set by the preceding one and has continued its main features. Among the accounts of national educational systems this volume contains extended articles on education in England and in France. State systems are represented by an article on Connecticut, and city systems by articles on the cities of Cincinnati, Cleveland, Columbus, and others. Among the universities, Columbia and Cornell are given the most space.

Among the more general articles on administration the most important is a group of articles on the different phases of the college. This group of articles covers sixty pages and comprises a very complete and enlightening treatment of the college in its various aspects. This series contains an article on the historical development of the American college; a clear discussion of the principles underlying the college curriculum with a summary of historical and current practice; accounts of the distribution of colleges in the United States, of college attendance in various countries, and of the vocational distribution of college graduates. Another article deals with college-entrance requirements. These examples will serve to indicate the scope of the treatment of this subject.

Another type of article deals with certain specific questions of educational administration. Such topics possess a live interest for educators because of their discussion of current problems. The present volume, for example, contains discussions of coeducation, of consolidation of schools in rural districts, and of evening schools. Another group of articles deals with the education of special classes of children, such as crippled children, the deaf, deaf-blind, and defectives.

The subjects which make up the content of education or which are related to education are fully treated. Among the subjects which appear in this volume are commercial education, education as an academic study, ethics, and forestry education. The social relationships of education are brought out in articles on citizenship and education and on education and crime; the medical and hygienic relationships are treated in articles on contagious diseases and on food and feeding.

Finally two large and important groups of articles deal with the philosophical or psychological questions which have a bearing upon education, and with practical questions which are closely related to these more theoretical disciplines. Here we find, for instance, articles on culture and on the culture-epoch theory; on the emotions and on eye- and ear-mindedness; on examinations and on formal discipline. The wide range of articles which are treated and the evident authoritativeness of a large proportion of them make the cyclopedia indispensable as a work of reference. The bibliographies and cross-references which accompany the articles also makes the work useful as a starting-point for systematic topical study.

As regards balance and distribution of space the present volume is better than the first one and presents few if any glaring irregularities. The ideal is not fully

attained, as is illustrated by the fact that the article on ethics occupies eight and one-half pages and the article on experimental education one page, but there appears to be marked improvement. A minor point of criticism may be made of the fact that some of the biographical articles which are accompanied by portraits in another part of the volume do not contain references to these portraits—as for example the articles on Compte and Darwin.

FRANK N. FREEMAN

UNIVERSITY OF CHICAGO

The Social Factors Affecting Special Supervision in the Public Schools of the United States. By WALTER ALBERT JESSUP. New York: Teachers College, Columbia University Contributions to Education, No. 43. Pp. vii+123. $1.00.

This Doctor's dissertation is largely a statement of the historical development of the so-called "special subjects" in American elementary education, with particular reference to the social demands leading to the introduction of each subject. The special subjects discussed are music, drawing, manual training, domestic science, physical education, and penmanship. About three-fourths of the book is of this historical character, and the remaining fourth is devoted to a statistical treatment of the geographical distribution of special supervisors of these subjects, their salaries, sex selection, and division of responsibility. This portion of the dissertation is partially historical since it involves a comparison of the conditions at different periods as shown by the reports of the United States commissioner of education for 1875, 1885, 1893, 1908, etc.

From the point of view of the present reviewer, this dissertation is significant as a relatively unique contribution to the history of American education. In recent years we have become familiar with the idea that the "social point of view" should prevail in the history of education, and that this subject should be treated as "one phase of the history of civilization." Unfortunately, however, many of those who have taken this point of view have made the development of philosophy the fundamental aspect of civilization to which they have related educational developments. At the present time there is a tendency to make economic, industrial, and other more concrete aspects of social life the point of departure. This is illustrated in Carlton's *Economic Influences on Education* (1908) and in Cubberley's little masterpiece entitled *Some Changing Conceptions of Education* (1909) and the several Doctor's dissertations prepared under Professor Paul Monroe which describe the development of the moving school, of local school supervision, of school support, etc., in Masschusetts.

Mr. Jessup's study is one of the first in English to apply this method to the development of the curriculum of the elementary school. The author has endeavored "(*a*) to find sanctions back of the demand for the introduction of these subjects most commonly thought of in connection with special teaching or supervision . . . .; (*b*) to ascertain if possible whether the demand for these subjects came from within the school itself, or whether it came from the [social][1] group outside; (*c*) to point out certain typical ways in which the new subject-matter became a part of the curriculum; (*d*) to determine the effect of the traditions of the school on the interpretation of the subject-matter; (*e*) to determine certain quantitative aspects of the problem. . . . ."

[1] The text reads "school group" but I judge this is a misprint.

As an example of the method of treatment of each subject, chap. iii, which deals with drawing, may be cited. The author takes up certain scattering attempts in teaching drawing before the middle of the nineteenth century; the influence of the reports by Stowe (1839) and Mann (1844) concerning foreign schools; the influence of the London exhibit of 1851 and the Paris exhibit of 1867; the clear-cut industrial basis for the introduction of drawing into the Massachusetts schools in 1870; the impetus given by the Philadelphia Centennial Exposition of 1876; the tendency in the schools to neglect the industrial reasons for which drawing had been introduced and to emphasize its value as a mental discipline.

The mechanics of the structure of the book are good, the liberal use of italicized paragraph headings and their organization in the analytical table of contents being especially helpful.

S. CHESTER PARKER

Progress through the Grades of City Schools, A Study of Acceleration and Arrest. By CHARLES HENRY KEYES, PH.D. New York: Teachers College, Columbia University.

Mr. Keyes has reported in great detail in this book the progress of pupils through the schools of a well-organized district in New England. The tables show the amount of acceleration, as well as the amount of retardation, and the study is especially interesting because it calls attention to acceleration which has commonly been overlooked. The general conclusion which Mr. Keyes emphasizes can be stated in his own words as follows: "Potential accelerates are present in our schools in very large numbers, comprising from one-fourth to one-third of all pupils above the first grade. The average accelerate, under favorable conditions, has the capacity to gain from one year in seven to two years in nine of the traditional city-school course. The number of such pupils is so considerable as to demand that special provision be made in every school system for freeing their progress through the schools. This service, whether it is to be rendered by special teachers or special classes and in a differentiated curriculum is too important for society to neglect. . . . .

"The experience under consideration shows that under the conditions described the middle grades of our schools are places of large opportunity for giving the superior pupil a chance to work up to the healthful limit of his better powers. Less than this is not education in the true sense."

The significance of this study for the general student of school statistics lies in the demonstration which is given of the necessity of a detailed study of the cases under consideration. Ayer's report on Laggards emphasizes only one side of the problem, and offers a method which, as Mr. Keyes has shown, obscures many of the important facts which should be known. Ayer's standard age for admission to schools is certainly too late. All of the studies that have taken up the facts in detail have demonstrated this with regard to Ayer's method, and Mr. Keyes's work is further confirmation of the general conclusion that has been reached in many of these studies.

If such studies as Mr. Keyes here reports could be made by every superintendent in charge of schools, there would be great gain in school organization and in the efficiency of instruction.

C. H. J.

CURRENT EDUCATIONAL LITERATURE IN THE PERIODICALS[1]

IRENE WARREN
Librarian, School of Education, The University of Chicago

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ADDAMS, JANE. A new conscience and an ancient evil. McClure 38:232–40. (D. '11.)

BROWN, H. A. A more efficient higher education for the country boy and girl. J. of Educa. (Bost.) 74:563–65. (30 N. '11.)

BROWN, HORACE G. Observance of historic days at school. Educa. 32:147–52. (N. '11.)

CARTER, HENRY. The help that counts. World's Work 23:177–87. (D. '11.)

CURTIS, NATALIE. Value of music school settlements in large cities. Craftsman 21:283–89. (D. '11.)

ELIOT, CHARLES W. Contributions to the history of American teaching (VII). Educa. R. 42:346–66. (N. '11.)

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(A) field school of geology. Science 34:706. (24 N. '11.)

FRESCHI, JOHN J. Parents to the bar! Harp. W. 55:12–13. (2 D. '11.)

Japanese schoolboys on peace. Lit. D. 43:907–8. (18 N. '11.)

LANGDON, WILLIAM CHAUNCY. The pageant of Thetford. Playground 5:302–18. (D. '11.)

LEE, JOSEPH. Play as medicine. Playground 5:289–302. (D. '11.)

LINDSAY, JAMES ALEXANDER. The hygiene of school life in Ireland. Child 2:93–98. (N. '11.)

LOVE, GRACE STANTON. The educational value of literature. Educa. 32:141–46. (N. '11.)

MONKMAN, J. W. Secondary schools and free secondary education. School W. 13:424–25. (N. '11.)

MÜNSTERBERG, HUGO. The Germans at school. Pop. Sci. Mo. 79:602–14. (D. '11.)

[1] Abbreviations.—Educa., Education; Educa. R., Educational Review; Harp. W., Harper's Weekly; J. of Educa. (Bost.), Journal of Education (Boston); Lit. D., Literary Digest; Pop. Sci. Mo., Popular Science Monthly; School Sci. and Math., School Science and Mathematics; School W., School World.

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STRAYER, GEORGE DRAYTON. The Baltimore school situation. Educa. R. 42:325–45. (N. '11.)

TOZIER, JOSEPHINE. The Montessori schools in Rome. McClure 38:123–37. (D. '11.)

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WETTER, A. A. Great Educators, III. Heinrich Pestalozzi. Educa. 32: 165–68. (N. '11.)

WINSHIP, A. E. The elimination of the hoodlum boy element. J. of Educa. (Bost.) 74:509–11. (16 N. '11.)